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20 August 2006

Mr. Robert Schneider, Chairman
Ms. Pamela Creedon, Executive Officer
Mr. Jack DelConte
Ms. Wendy Wyels
Mr. Timothy O'Brien
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6144

VIA: Electronic Submission
Hardcopy if Requested

RE: Waste Discharge Requirements and Master Reclamation Permit for City of Lathrop Water Recycling Plant, San Joaquin County

Dear Messrs Schneider, DelConte, O'Brien and Mesdames Creedon and Wyels:

The California Sportfishing Protection Alliance, Watershed Enforcers and San Joaquin Audubon (hereinafter "CSPA") has reviewed the Central Valley Regional Water Quality Control Board's (hereinafter "Regional Board") tentative waste discharge requirements and master reclamation permit (hereinafter "Order" or "Permit") for the City of Lathrop's water recycling plant (hereinafter "Discharger") and has serious concerns regarding the Order. CSPA believes the Order is illegal and nonprotective and requests designated party status. Our comments are as follows:

1. Failure to Require Pretreatment Program

Section 402(b)(8) of the CWA requires that POTWs establish a Pretreatment Program in order to ensure that significant industrial users comply with Section 307 (b) of the CWA. The implementing regulations at 40 CFR 403.8 require that any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5.0 MGD must implement a pretreatment program. In this case, Finding Nos. 7 and 8 indicate the design flows for two proposed treatment facilities are 3.12 MGD. Because the Discharger will own and operate two POTWs with a total design flow of 6.24 MGD (i.e. greater than 5.0 MGD), the Discharger must implement a Pretreatment Program. The tentative Order fails to require that the Discharger implement a Pretreatment Program.

2. Long-Term Agreement

Finding No. 6 states, "The Discharger owns the mechanical treatment system and the land where it is located. The WRP treatment facilities site plan is shown on Attachment B, which is attached hereto and made part of this Order by reference."

The Discharger owns the "mechanical" treatment systems but does not own all the land application areas, which provide additional waste removal and biological treatment system via the soil column and crops. The tentative Order does not discuss any long-term agreements between the property owners and the City for wastewater disposal. It is inappropriate to allow the disposal of wastewater to property without first obtaining a long-term use agreement. The Regional Board must insure that any agreement allows wastewater disposal for at a minimum the life of the Order and requires land application areas to be managed and maintained as treatment units and to comply with Title 22. The tentative Order is also unclear if the City of Lathrop has actually completed CEQA for all the recycled water use areas.

3. Failure to Delineate Wetlands and Requirements for Biological Survey

Finding No. 10 states, "This Master Reclamation Permit allows the Discharger flexibility in changing the size and use of land areas for recycled water storage or land application. Changes to the approved configuration will be requested by the Discharger through Recycled Water Expansion Reports (RWERs) that will be approved, as appropriate, by the Executive Officer."

The CEQA documents, on which the tentative Order is based, identify a number of endangered species and wetlands in the project area. The recycled water application and associated crop management activities may have detrimental effects on endangered species and may impact wetlands. The tentative Order fails to require the Discharger to delineate wetlands within the land application areas and to establish any necessary setback. The Discharger is not required to conduct biological surveys of the land application necessary to identify endangered species that may be affected by wastewater disposal.

4. Management of Land Application Areas

Finding 9 states in part that, "After treatment, domestic wastewater is called recycled water. Recycled water will be stored in lined storage ponds and applied to land application areas. Land application areas will consist of landscaped areas, turf areas, agricultural crop areas, and may include infiltration basins."

This Finding does not accurately describe the purpose of land application areas. "Land application areas" are actually an integral part of the wastewater treatment facility and are specifically for the treatment of waste. Land application areas must be operated and maintained in a fashion that ensures the highest and most consistent waste treatment possible. While we encourage the Regional Boards' recycling efforts, land application areas must remain first and foremost as treatment units for waste removal. Historically crops raised on the land application have not been selected for maximum waste removal.

Selection of crops with a lower waste removal rates but which may be more profitable cannot comply with Resolution 68-16, as it is not BPTC. Therefore, the tentative Order must require that crop selection, crop management and harvest are based on the highest obtainable waste treatment/removal rates.

5. Infiltration Basin Prohibition

Finding No. 9 indicates that the Discharger may employ infiltration basins for wastewater. Finding No. 40 states, "Infiltration basins will only be utilized where the evapotranspirative concentration of effluent salts by vegetation may cause unacceptable degradation of shallow groundwater. Infiltration basins will receive no more than 60-inches of effluent per year to remove all incentive to use infiltration basins other than to protect underlying groundwater quality. The use of infiltration basins is subject to Executive Officer approval."

The tentative Order shows that the underlying groundwater is very shallow, two feet in some locations, reported soil percolation rates may be as high as 6 inches per hour, i.e. approximately 12 feet per day, and groundwater elevations are actively controlled through dewatering activities. The discharge from these dewatering sites is to the surrounding surface waters. Infiltration basins would allow for continuity between waste discharges from the infiltration basins to surface water via the shallow groundwater and dewatering activities. The Discharger must obtain an NPDES permit in order to discharge waste to surface waters from the infiltration basin. As indicated by Finding No. 60, "A damaged stormwater drainage pipe is locally dewatering the southern portion of the Mossdale Landing area. The broken pipe is located on the east side of Highway 5. The damaged pipe is near recycled water storage ponds and land application areas; therefore, it could allow more rapid transport of wastewater contaminants to surface water bodies and must be repaired. The Discharger has committed to repairing the damaged pipe by June 2008. The repair will be completed before groundwater originating in the recycled water land application areas/storage ponds is likely to migrate to the drainage pipe."

The tentative Order prohibits the discharge of waste to surface water. The tentative Order must also prohibit infiltration basins in areas of shallow groundwater and which allows waste to be discharged either via reclamation ditches and/or broken/damaged stormwater drains or which is dewatered and then pumped to surface waters. Discharges to surfaces waters via infiltration basins or dewatering groundwater underlying land application areas either intentional or via broken stormwater systems must comply with Sections 307, 318, 402, and 405 of the CWA. It is illegal for the Executive Officer to approve these surface water discharges.

6. Failure to Identify All Responsible Dischargers

Finding No. 9 states in part, "Several developers own the existing and proposed recycled water storage pond sites and land application areas, which they will transfer

ownership of, or lease the land, to the Discharger." Finding No. 32 indicates that the majority of existing land is still owned by "Califia LLC."

All property owners of the wastewater land application/disposal areas must be included in the Order as "Dischargers". The tentative Order fails to name the property owners as Dischargers. The tentative Order must list all the property owners as "Dischargers". If the property is transferred, then the developers may request to have their respective names removed from the Order at that time. If the developer (owner) leases the property to the City of Lathrop, then the developer must remain as a Discharger.

7. Definition for Recycled Water

Finding No. 9 incorrectly defines recycled water as wastewater after treatment. Please note that Title 22 contains a definition for recycled water, which is based on treatment standards for a specified type of reuse and not simply wastewater after treatment. Title 22 recycled water requirements also requires that redundant treatment systems are in place and short and long term storage capacity for noncompliant recycled water, water testing and reuse criteria.

8. Fails to Require Inflow and Infiltration Study

Finding No. 13 states in part, "Based on wastewater generated in the existing residential development north of Louise Avenue within the City of Lathrop (which continues to be treated by the City of Manteca wastewater system), the raw wastewater characteristics anticipated are presented below. Because the Mossdale Landing constituent concentrations are low, significant inflow and/or infiltration is believed to be occurring."

The tentative Order fails to restrict the discharge of unpolluted water to the WWTP including the collection system. The tentative Order must require the Discharger to conduct an I&I Workplan to locate, identify and correct "significant inflow and/or infiltration." In addition, due to the shallow groundwater conditions, the collection system must be designed and maintained to prevent discharges of sewage to the underlying groundwater during the summer periods and excessive infiltration during the wet season. Therefore, the Order must require that all portions of the WWTP including the collection system meet BPTC in order to comply with Resolution 68-16.

9. Dye/Tracer Study

Finding No. 18 states, "Currently, effluent is disinfected using a sodium hypochlorite solution in a chlorine contact tank that provides more than 90 minutes of modal detention time. Sodium hypochlorite is stored in two 5,000-gallon tanks. Two metering pumps (one operating and one backup) provide for chemical disinfection; a third dosing pump supplies sodium hypochlorite for membrane cleaning and Clean in

Place (CIP) use." Finding No. 26 indicates that the Discharger has completed a Title 22 report for the existing WWTP and staff has received comments from DHS.

However, the tentative Order did not include the results of any dye/tracer study conducted by the Discharger nor did it provide the maximum dose rate for the disinfection system under peak flow conditions. In order to determine compliance with Title 22, the actual modal contact time under peak flow conditions must be known. In order to calculate the actual modal contact time and to demonstrate that short-circuiting is not occurring in the chlorination system, the Discharger must perform a dye/tracer study. The tentative Order fails to require that the Discharger demonstrate compliance with Title 22 by conducting a dye/tracer study.

10. Pollution Prevent Plan

Finding No.33 states in part, "The Discharger is encouraged to consider use of potassium hydroxide rather than sodium hydroxide. Potassium is more likely to be taken up by the crop in land application areas."

It is obvious from this finding that the Discharger has not performed a pollution prevention plan. The Regional Board may require the Discharger to conduct a pollution prevention plan in order to reduce waste discharges. The tentative Order fails to require the Discharger to conduct a pollution prevent plan to reduce the potential impacts from sodium and other mineral salts.

11. Prohibition on Salt Water Softeners

Please note that for new developments, the City could easily prohibit the use of water softeners that requires salt to regenerate. Several winery WDRs contain prohibition on the use of water softeners. The Discharger's CEQA documents indicate that City may install wellhead treatment for salts and thus eliminate the need for home water softeners. Given the close proximity to Region 2 where brine disposal is available, this compliance measure is viable. The Order must prohibit water softeners that use salt brine to regenerate.

12. Public Right to Comment and Review

Finding No. 41 "Additional wastewater storage ponds and land application areas will be constructed to accommodate future wastewater flow increases. As a result of continuing development in the area, some storage ponds and/or land application areas that are in use may be decommissioned or replaced by alternative facilities (e.g. land application areas converted to recycled water storage ponds). This Order allows reconfiguring facilities pursuant to the requirements contained in the Provisions of this Order, applicable CEQA documents, and Executive Officer approval of RWERs."

The public cannot reasonably be expected to provide comments without having even the basic project descriptions, CEQA documents and site-specific information

available to them regarding new or reconfigured facilities. The tentative Order effectively eliminates public comments for most of the new development areas. The tentative Order must afford the public the opportunity to make meaningful comments to the project. In this case, the project has not been fully identified or described for the public to submit comments at this time. Approval of RWERs must be brought before the Regional Board.

13. 100- Year Flood Protection

Finding No. 54 states in part, "With the exception of some of the River Islands land application areas and potential land application area No. A26 and A27 (described in the RWD) all areas proposed for wastewater collection, treatment, storage and reclamation facilities are outside the 100-year flood zone."

As previously discussed, land application areas are treatment units and therefore must have 100-year flood protection. The tentative Order fails to require the Discharger to upgrade River Island and other application area with the necessary flood protection.

14. Prohibition of Irrigation to Saturated Soils

Finding No. 54 also states, "Land application areas will not be irrigated except as needed to meet vegetation water needs. Saturated soil will not be irrigated with recycled water." Finding No. 63 states, "Depth to groundwater varies depending on location, season, and local influences such as irrigation practices, groundwater extraction, and the presence and stage of surface water bodies."

Soils may be saturated by rainfall and irrigation but also by high groundwater conditions. In order to ensure adequate treatment and prevent discharges to surface waters, irrigation of recycled water to land application areas when groundwater elevations are within 12 feet of the surface must be prohibited. Irrigation rates may not exceed the calculated evapotranspiration rate that limits wastewater to the active root zone.

15. Prohibit Discharge to Areas with High Percolation Rates

Finding No. 56 states, "Based on the National Resource Conservation Service soil survey, the soils in the proposed land application areas are sandy to silty clay loams. Published infiltration rates for the soils range from 0.06 to 6.0 in/hr." As previously discussed, we object to the use of land application areas that contain high percolation rates in that these areas do not provide adequate treatment and waste retenuation in the soil column and allow for waste discharges to reach surface waters. The tentative Order must prohibit wastewater disposal in areas containing high percolation rates.

16. Prohibition of Land Application on River Island and Mossdale

Finding No. 65 is incorrect. River Islands is bounded to the north and west by Old River, to the east by the San Joaquin River, and to the south by Paradise Cut. Technically without the extensive ongoing dewatering activities on River Island, the groundwater elevation, if left to the natural state, would reach the same elevation as the adjacent surface water. Because of the ongoing dewatering activities that transport groundwater underlying the application areas to surface waters, the Discharger must obtain an NPDES permit to use River Island application areas.

Finding No. 66 describes the groundwater condition for Mossdale and states in part, "Groundwater is typically observed within 5-10 feet of the ground surface and varies seasonally, rising to less than 5-feet of the ground surface. Groundwater elevation is influenced by the nearby river stage and also dewatering activities. Dewatering is performed for construction activities and is also occurring as a result of the broken stormwater pipe located east of the Mossdale area. In the northern portion of Mossdale, groundwater flows to the southwest, toward the San Joaquin River. Groundwater flow direction in the southern portion of Mossdale is controlled by dewatering activities." Because of the ongoing dewatering activities that transport groundwater underlying the application areas to surface waters, the Discharger must obtain an NPDES permit to use Mossdale application areas.

17. CEQA

"Compliance with this Order implements the mitigation measures related to wastewater issues." However, the mitigation measures were not incorporated into the Order and only listed in the Findings. The tentative Order fails to incorporate CEQA mitigations measures that are necessary to ensure water quality: for example, wethead treatment for TDS reduction and connection to a regional treatment plant. We recommend using an attachment to the Order such as was done recently for the Port of Stockton.

18. Prohibition of Incidental Discharges

Discharge Specification No. 7 states, "The incidental discharge of recycled water from land application areas to waters of the State is not a violation of these requirements if the incidental discharge does not unreasonably affect the beneficial uses of the water, and does not result in exceeding an applicable water quality objective in the receiving water. Such discharge is only acceptable if the land application area has an approved irrigation system, safeguards to prevent discharge, and monitoring at the frequency in the Monitoring and Reporting Program."

There is no clear definition of "incidental runoff" or quantification of what is an "unreasonable affect on beneficial uses" in the Order. Incidental overspray on to a sidewalk is one thing but a discharge to surface waters via groundwater pumping or overflow from a containment basin cannot be considered "incidental." The Order must better define "incidental runoff" and "unreasonable affect on beneficial uses."

19. Monitoring and Reporting Program

MRP fails to require the Discharger to sample the effluent for priority pollutants at least twice per year. Please note that pH monitoring should be continuous with a pH meter.

20. Lack of a Legally Defensible Antidegradation Analysis

There is no antidegradation analysis in the proposed Order. Conclusory, unsupported and undocumented statements cannot serve in lieu of a legally required antidegradation analysis.

The Fact Sheet states, "Resolution 68-16 is applied on a case-by-case, constituent-by-constituent basis in determining whether a certain degree of degradation can be justified. It is incumbent upon the Discharger to provide technical information for the Regional Board to evaluate that fully characterizes:

- All waste constituents to be discharged;
- The background quality of the uppermost layer of the uppermost aquifer;
- The background quality of other waters that may be affected;
- The underlying hydrogeologic conditions;
- Waste treatment and control measures;
- How treatment and control measures are justified as best practicable treatment and control;
- The extent the discharge will impact the quality of each aquifer; and
- The expected degree of degradation below water quality objectives. Fact Sheet, p. 3.

The Fact Sheet then admits, "Groundwater monitoring has been conducted at the site but the area monitored is large, no systematic program for characterization was implemented, and some data was collected without sampling and analysis plans or quality assurance plans; therefore staff are unable to establish the most appropriate groundwater limits. In addition, certain aspects of wastewater treatment and control practices may not be justified as representative of Best Practicable Treatment and Control (BPTC). The Fact Sheet then observes, "[t]he proposed Order establishes interim receiving water limitations to assure protection of the beneficial uses of groundwater of the State pending the completion of certain tasks and provides time schedules to complete specified tasks. During this period, degradation may occur from certain constituents, but can never exceed water quality objectives (or natural background water quality should it exceed objectives) or cause nuisance. Fact Sheet, p. 3.

In other words, staff doesn't know what background water quality is, the appropriate effluent limits or whether BPTC is being applied but is proposing to allow some unknown level of degradation to occur justified by some unknown benefit on the assumption that the Discharger will do in the future what is was legally responsible to do before the permit was issued. This is a blatant violation of the state's antidegradation policy.

State Board guidance for complying with antidegradation requirements is set forth in the Administrative Procedures Update 90-004 (APU 90-004). For example, the Fact Sheet must discuss:

a. The water quality parameters and beneficial uses that will be affected by the project and the extent of the impact.
b. The scientific rationale for determining that the proposed action will or will no lower water quality.
c. A description of the alternative measures that were considered. There is no alternatives analysis.
d. A description of the socioeconomic evaluation. This must include a comprehensive financial impact analysis evaluating the economic and social costs (tangible and intangible) compared to benefits. Among other requirements it must compare the baseline socioeconomic profile of the community with and without the project vis-à-vis the long and short-term socioeconomic impacts of maintaining existing water quality. And more.
e. And finally, it must discuss the rationale for determining that the proposed action is or is not justified by socioeconomic considerations. Fact Sheet, p. 3.

Conclusory statements that degradation of waters belonging to the people of the state is allowable because it provides some unknown benefit to a private party when that party has failed to conduct the required studies (i.e., alternatives and socioeconomic analyses), documentation and determination of BPTC and the Board has failed to comply with the procedural requirements set forth in APU 90-004 cannot meet any credible legal test of compliance with the state's antidegradation policy.

21. Title 27

The tentative Order fails to comport with Title 27 requirements. The Fact Sheet states, "[d]ischarges of domestic sewage and recycled water can be treated and controlled to a degree that will not result in unreasonable degradation of groundwater. For this reason, they have been conditionally exempted from Title 27. Discharges of domestic sewage and treated effluent which are regulated by WDRs and treatment and storage facilities associated with the WWTF are considered exempt from Title 27 under Section 20090(a), provided that the discharges and facilities will not result in a violation of any water quality objective. As the exemption specifically excludes the discharge to land of: 1) solid waste such as grit and screenings that result from treatment of domestic sewage, and 2) residual sludge that will not be further treated at the WWTF, such discharges must comply with provisions of Title 27." Fact Sheet, p. 7.

However, the Discharger's blatant failure to adequately characterize groundwater quality and identify BPTC, coupled with staff's failure to conduct the legally required antidegradation analysis, makes a mockery of any exemption from Title 27 requirements. Title 27 does not allow degradation of groundwater quality.

In conclusion: the Order addresses a new discharge and it is simply unreasonable for the Regional Board to issue WDRs and essentially reward a new discharger for failing to submit an adequate Report of Waste Discharge that fully characterizes groundwater quality and provides sufficient information to determine whether the treatment and disposal processes meet BPTC. Nor is it acceptable to ignore the specific procedural requirements of the state's antidegradation policy. Applying interim limitations to a new discharge because the Discharger failed to comply with explicit regulatory requirements is an abandonment of responsibility to protect the waters of the state. And finally, land application to soils that are routinely dewatered to surface water represents an illegal bypass and must be regulated by an NPDES permit.

Thank you for considering these comments. If you have questions or require clarification, please don't hesitate to contact us.

Sincerely,

Bill Jennings, Executive Director
California Sportfishing Protection Alliance